

REMARKS

Attached hereto is a Petition and fee for a one month time extension and an excess claims fee.

Claims 1-34 are all the claims presently pending in the application. New claims 31-34 have been added to claim additional features of the invention.

It is noted that the claim amendments are made only for more particularly pointing out the invention, and that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Applicant gratefully acknowledges the Examiner's indication that claims 6-11, 12-18, and 21-24 have been allowed, that claims 25-30 would be allowable if rewritten to overcome the 35 USC §112, second paragraph rejection. Applicant believes that the above amendment to claim 25, based on the Examiner's helpful suggestion, properly addresses the insufficient antecedent basis issue and requests that the Examiner reconsider and withdraw this rejection.

The other amendments to the claims are made for clarity and not for any reason related to patentability or for narrowing the claim.

Applicant also gratefully acknowledges the Examiner's indication that claims 3 and 5 would be allowable if rewritten in independent form. However, as explained below, Applicant believes that the present invention as defined by claim 1 is clearly patentably distinct from the prior art currently of record, but reserves the right to later rewrite claim 3 into independent format.

Claims 1-2 and 19-20 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Bang, et al. (U.S. Patent No. 6,222,873). Claim 4 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Bang, in view of Yoon (U.S. Patent No. 6,396,868).

These rejections are respectfully traversed in the following discussion.

I. THE CLAIMED INVENTION

As described and exemplarily defined in claim 1, the present invention is directed to a communication apparatus wherein transmission data containing a first signal and a second signal different from said first signal is transmitted.

The communication apparatus includes a transmission power controller for controlling at least one of a transmission power of the first signal and a transmission power of the second signal in such a manner that the transmission power of the first signal is made substantially coincident with the transmission power of the second signal. A transmitter transmits the transmission data containing the first signal and the second signal in a transmission power controlled by the transmission power controller.

In an exemplary scenario addressed by the present invention, conventional CDMA communication methods fail to recognize that power of the pilot signal portion is N^2 , whereas the power for the data signal portion is N when N pieces of transmission data stream are simultaneously transmitted by a multi-code transmission spread method. This difference in power causes the signal at the received mobile station to deviate from the ideal case in which preferably substantially constant power is desired for all signal portions.

The claimed invention, on the other hand, provides a method that can control transmission power even during the conventional CDMA multi-code scenario, thereby controlling transmission power for stable conditions.

II. THE PRIOR ART REJECTIONS

The Examiner alleges that Bang anticipates the present invention as defined by claims 1, 2, 19, and 20, and, when combined with Yoon, renders obvious the present invention as defined by claim 4.

Applicant respectfully disagrees, as follows.

The Examiner relies upon the description at lines 50-60 of column 10 for alleging that Bang teaches that the "... said transmission power of the first signal is made substantially coincident with said transmission power of the second signal."

However, Applicant submits that the description at lines 50-60 does not reflect a suggestion for power settings under normal operation.

Rather, the words: "... [i]n order to provide the identical conditions In the above-described state, the statistical distributions of the peak power-to-average power are compared".... clearly indicate that the power settings are purely hypothetical and only for the purpose of a mathematical comparison of statistical distribution of the peak-power-to-average power between the prior art device (e.g., prior to Bang) and Bang's invention. Thus, Bang attempts a manipulation of hypothetical conditions to compare "apples" (e.g., prior art) to "apples" to show the utility of Bang versus the prior art device.

This statement and this comparison is significant in view of the problem being addressed in Bang, as described at lines 59-63 of column 2: "*In view of the crest factor and the statistical distribution of the power amplitude, in the CDMA ONE, the peak power is generated in vertical direction, so that the irregularity problem of the spreading code and an inter-interference problem occur.*"

Therefore, Applicant submits that Bang does not at all teach or suggest operating a CDMA apparatus so that signal portions have "substantially coincident" power levels. Yoon is used in the rejection currently of record to demonstrate interweaving and, although Applicant traverses the propriety of combining references solely on the basis that a missing claim element is well known in the art (see, e.g., MPEP §2143.01), this secondary reference does not overcome the deficiency identified above for Bang.

Hence, turning to the clear language of the claims, in Bang there is no teaching or suggestion of: "... a transmission power controller for controlling at least one of a transmission power of said first signal and a transmission power of said second signal in such a manner that said transmission power of the first signal is made substantially coincident with said transmission power of the second signal", as required by claim 1.

New claims 30-34 are patentable for similar reasons.

Therefore, Applicant submits that the present invention is clearly patentable over the prior art currently of record.

III. FORMAL MATTERS AND CONCLUSION

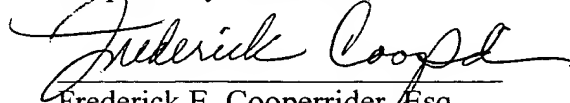
In view of the foregoing, Applicant submits that claims 1-34, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Date: 3/25/04

Respectfully Submitted,


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